

During the last year, the doctrine community, led by the Air, Land, Sea Application (ALSA) Center, Langley Air Force Base, Virginia, tackled the development of kill box doctrine. ALSA brought together service and joint doctrine developers with subject matter experts (SMEs) from the combatant commands, including personnel with recent experience in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF).

The result of that effort, *Field Manual 3-09.34 Multi-Service Tactics, Techniques and Procedures (MTTPs) for Kill Box Employment*, introduces the kill box as a new fire support coordinating measure (FSCM). The FM gives it the following definition: "A kill box is a three-dimensional FSCM used to facilitate the expeditious air-to-surface lethal attack of targets, which may be augmented by or integrated with surface-to-surface indirect fires."

For the first time, the services have one definition of kill boxes and agreed upon MTTPs for employing them. As of June 2005, the kill box became the first new FSCM to be recognized by all the services in more than three decades.

The kill box is primarily applicable at the operational level. The target audience for the new publication includes commanders as well as the operations sections (current operations, fires and future plans) and intelligence sections of service components and their main subordinate elements (i.e., Army corps, Marine expeditionary force, Navy numbered fleet and Air Force wing) and their counterparts on the joint force commander's (JFC's) staff.

FM 3-09.34 was signed 13 June and is being printed as this magazine is being printed. The Air Force pub number is AFTTP(I) 3-2.59, the Marine pub number is MCRP 3.25H and the Navy pub number is NTTP 3-09.2.1.

This new FM 3-09.34 facilitates air-to-surface attacks, recognizing the increasing demands for rapid joint fires integration, deconfliction, responsiveness and component coordination while, at the same time, minimizes the risk of fratricide. It standardizes and codifies the kill box as a coordination measure, multiple versions of which have been developed in standing operating procedures (SOPs) and combat operations during the last 20 years and used by virtually all combatant commands.

Kill Box Basics. The primary purpose of a kill box is to allow air assets to

conduct interdiction against surface targets without further coordination with the establishing commander and without terminal attack control.

Kill box boundaries normally are drawn using an area reference system, but they could follow well defined terrain features or may be located by grid coordinates or a radius from a center point.

The kill box is a permissive FSCM; however, it also restricts the trajectories and effects of surface-to-surface indi-

rect fires.

There are two types of kill boxes: blue for facilitating the air-to-surface attack of targets and purple for facilitating air-to-surface attacks while integrating surface-to-surface indirect fires. The purple box employs altitude, lateral or time separation techniques for limiting surface-to-surface indirect fires, protecting friendly aircraft.

When integrating air-to-surface and surface-to-surface indirect fires, the kill box will have appropriate restrictions. The goal is to reduce the coordination needed to fulfill the support requirements with maximum flexibility while preventing fratricide.

In a linear battlespace, kill boxes can augment use of traditional FSCMs, such as fire support coordination lines (FSCLs) or coordinated fire lines (CFLs). They can help the commander focus the effort of air and indirect fire assets. Typically, within the land component's area of operations, kill boxes will be established short of the FSCL to eliminate the coordination required by air assets when striking interdiction targets to support the land component's concept of operations.

In a nonlinear battlespace, when traditional FSCMs are not useful or are less applicable, the kill box can be another method for identifying areas to focus

KILL BOX

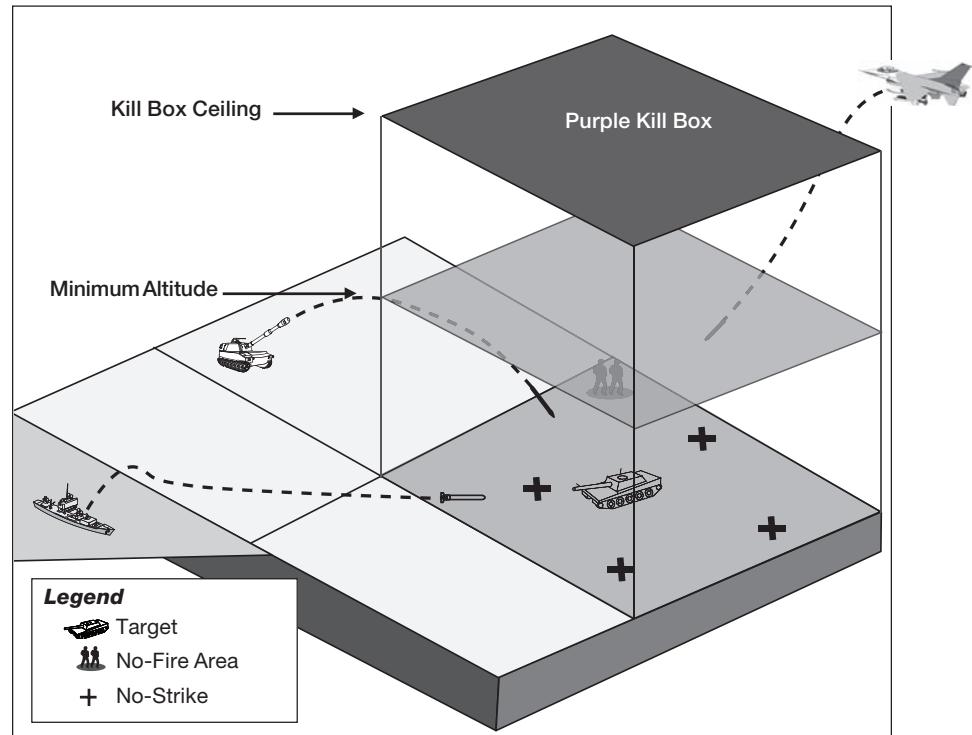
The Newest FSCM

By Lieutenant Colonel
Karl E. Wingenbach

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The kill box is a unique FSCM that may contain other measures within its boundaries. For example, a kill box may include no-fire areas (NFAs), restricted operations areas (ROAs) and airspace coordination areas (ACAs). Restrictive FSCMs and airspace control measures (ACMs) always have priority when established in a kill box.

No friendly ground forces should be within or maneuvering into established kill boxes. If circumstances require otherwise—such as long-ranges surveillance patrols (LRSPs), special operations forces (SOF) teams, etc.—then NFAs must be established to cover those forces, or the kill box must be closed.

A kill box won't be established specifically for close air support (CAS) missions. However, this does not restrict CAS missions from being executed inside kill boxes if all the CAS requirements are met.

The JFC normally delegates the authority to establish and adjust kill boxes to component commanders responsible for the battlespace. The component commander establishes and adjusts a kill box in consultation with superior, subordinate, supporting and affected commanders; the kill box is an extension of the existing support relationship established by the JFC. (See the kill box responsibilities figure.)

Most of the information in this sec-

tion, "Kill Box Basics," was either taken directly from or a paraphrase of FM 3-09.34. A copy of the approved FM may be downloaded from Reimer Digital Library, requiring an Army Knowledge Online (AKO) account: <http://www.train.army.mil>. Another source for ".mil" domain users is the ALSA Homepage: <https://wwwmil.alsa.mil/index.html>.

Kill Box Doctrine Development. In the last year, the service doctrine centers worked to resolve differences and answer the following questions: What is a kill box? Is a kill box an area reference system? Is it an FSCM? Is it used to facilitate air-to-ground attacks? Does it indicate component commander responsibilities? These may seem like simple questions, but joint and service doctrine has differed and combatant commanders have developed similar, but distinctive SOPs.

The development of specific, detailed doctrine and tactics, techniques or procedures (TTPs) for kill boxes began in March 2004. Much of the early discussion centered on whether the kill box was an FSCM, an ACM, both or a new hybrid measure with specific attributes. Many SMEs argued that it could be any of these, depending on a color code, similar to the various theater SOPs. However, the joint working group decided that the kill box was most closely related to FSCMs, although it had ACA attributes.

Joint Publication 1-02 (JP 1-02), De-

partment of Defense Dictionary of Military and Associated Terms defines a kill box as "a three-dimensional area reference that enables timely, effective coordination and control and facilitates rapid attacks."¹ The joint pub includes little description and no TTPs.

Air Force Doctrine Document 1-2 (AFDD 1-2) Air Force Glossary defines a kill box as "a generic term for a preplanned ACM and (or) an FSCM used by the joint force to integrate and synchronize air and surface operations and deconflict joint fires in an expedient manner or on an asymmetric battlefield."² The term is not officially defined in Army, Navy or Marine Corps doctrine.

Reviews of combatant command SOPs yielded more kill box definitions and uses. In Korea, there are several restrictive and permissive kill box types. Some are essentially restricted fire areas (RFAs) protecting friendly troops, while others are ACAs focusing air assets on an indicated area.³ In US Army Europe (USAREUR), kill boxes are ACMs used to enable joint fires.⁴ In Central Command (CENTCOM), the kill box interdiction/CAS (KI/CAS) concept of operations uses kill boxes to indicate areas for rapid air-to-ground attack, CAS and where ground forces are located.⁵ Color coding is used to indicate the type of kill box (for example, green for areas where ground forces are located, red for re-

| Blue/Purple Kill Box | Establishing Commander ¹ | Component Coordination Requirements |
|---|--|---|
| Outside JFC-Designated AOs | JFC or JFACC (When Delegated) ² | JFACC: No additional coordination required once established. Other Components: Must coordinate with JFACC. Purple Kill Box Restrictions: Altitude, lateral or time separation as specified when established. |
| Inside JFC-Designated AOs | Land, Maritime or Service Component Commander ³ | JFACC: No additional coordination required once established except changes in establishing commander's target priorities, effects and timing. Establishing Headquarters: Must notify the JFACC when opening, closing, canceling or changing the type of kill box or changing due to the establishing commander's changes in target priorities, effects and timing. Other Components: Must coordinate with establishing headquarters. Purple Kill Box Restrictions: Altitude, lateral or time separation as specified when established. |
| Notes: 1. The JFC may be the establishing commander for any FSCM within the AOR. 2. The JFC normally will delegate to the JFACC the authority for establishing kill boxes in unassigned areas of the JOA. 3. The JFSOCC is the establishing commander for kill boxes inside a JSOA. | | |
| Legend: AOs = Areas of Operation AOR = Area of Responsibility FSCM = Fire Support Coordinating Measure | | |
| JFACC = Joint Force Air Component Command JFC = Joint Force Commander JFSOCC = Joint Force Special Operations Component Command | | |
| JOA = Joint Operations Area JSOA = Joint Special Operations Area | | |

Kill Box Responsibilities (FM 3-09.34 Multi-Service Tactics, Techniques and Procedures (MTTPs) for Kill Box Employment, Table II.1)

stricted areas and black for special operations forces locations).

For those familiar with the definitions of fire support and ACMs⁶ and their attributes, all these definitions and uses may seem confusing and overlapping. How can one *kill* box allow air assets to attack ground targets without coordination (permissive), while another protects friendly ground troops from those same fires (restrictive)?

What complicates matters in every theater, is that the kill box is used as a measure to facilitate rapid attack of targets and as an area reference system (also known as common area reference system, common grid reference system or common geographic reference system). Within theater SOPs, the area reference system and the kill box are interchangeable. In fact, joint doctrine also confuses the ideas by stating that "...area reference systems are often described as...kill boxes..."⁷

The Kill Box is a Stand Alone FSCM. One of the first things the joint working group (JWG) realized was the necessity to de-link the kill box from the area reference system.⁸ The two clearly can be related but are not synonymous. OEF and OIF proved the usefulness of the area reference system beyond facilitating rapid air-to-ground attack of targets.

The various combatant commands use a color code (green, black and brown kill boxes) to identify areas where ground forces are located, but these are RFAs and not "kill boxes"; any fires into them must be coordinated. If the area reference system was just a reference system and not a kill box system,

then the area reference system could be used to delineate any required areas, such as RFAs, NFAs, ACAs or named areas of interest (NAIs). The area reference system merely would be a simple way to refer to and identify those areas. Of course, the various coordination and control measures still could be drawn using grid coordinates or radius from a point, but the area reference system would provide simplicity and brevity.

Way Ahead. The next step for kill box doctrine development is to officially establish the kill box as a jointly recognized FSCM during the revision of *JP 3-09 Doctrine for Joint Fires*⁹ and write it into the revision of *FM 3-09 Doctrine for Fire Support*. Although the various combatant commanders sent representatives to the working groups to help develop FM 3-09.34, the kill box has only been approved by the services and will not be officially "joint" until the entire joint doctrine development community (which includes the five services, joint staff and the combatant commands) decides to add it to JP 3-09.

Additionally, experiments are planned for kill boxes as they relate to other changes in the areas of command and control systems, organizations and training. For example, the Office of the Secretary of Defense Joint Test and Evaluation (JT&E) for Joint Fires Coordination Measures (JFCM) plans to experiment with kill box MTTPs. The JT&E seeks to increase limited available joint fires efficiency, maximize limited fires effectiveness and reduce the risk of fratricide through standardized kill box MTTPs.

Employing (or not) service-approved TTPs is the option of the combatant commander. But through the efforts of doctrine developers, the combatant commander now has clearly defined, simple and flexible kill box FSCM to help facilitate his air-ground operations and give him agility—attributes valued in all military operations.

Lieutenant Colonel Karl E. Wingenbach is the Joint Doctrine Manager for Training and Doctrine Command (TRADOC) and was the Army lead for developing kill box doctrine. In his previous assignment, he was the Operations Chief for the 1st Battlefield Coordination Detachment (Airborne) deployed to the Coalition/Joint Air Operations Center in Kuwait during Operations Enduring Freedom and Iraqi Freedom. In that job, he coordinated, executed and managed air operations in support of the land component, including kill boxes. His email address is karl.wingenbach@us.army.mil.

The author wishes to acknowledge Lieutenant Colonel (LTC) Charlie Guerry, Chief, Joint and Multinational Doctrine Division, Combined Arms Doctrine Directorate, Combined Arms Center, Fort Leavenworth, Kansas, for invaluable help in crafting this article. Additionally, the author acknowledges the contributions of LTC Lou Schurott, US Army, and Lt Col Rob McCreadie, USAF, at the Air, Land, Sea Application Center, Langley AFB, Virginia, who led the effort to develop joint kill box doctrine.

Endnotes:

1. *Joint Publication 1-02 (JP 1-02) Department of Defense Dictionary of Military and Associated Terms* (12 April 2001, as amended through 9 May 2005), 295. The definition for the kill box in FM 3-09.34 will replace the definition for kill box in JP 1-02 when JP 3-09 *Doctrine for Joint Fires* is revised.
2. *Air Force Doctrine Document 1-2 (AFDD 1-2), Air Force Glossary* (24 August 2004), 31.
3. *Combined Forces Command (CFC) Publication 3-1 Joint/Combined Fires-Korea* (15 April 2003), Chapter 5.
4. *USAREUR/USAFA [US Air Force Europe] TTPs for Command and Control of Joint Fires* (24 April 2001), Chapter 4.
5. *CENTCOM Kill box Interdiction/Close Air Support (K/CAS) CONOPS [Concept of Operations]*, 2003.
6. Airspace coordination measure (ACM) is the joint term; the Army term, in accordance with

- FM 1-02, is airspace control measure.
7. *JP 3-60, Joint Doctrine for Targeting* (17 January 2002), Appendix D "Common Reference Systems: Area and Point," D-1.
8. *FM 3-60.1 MTTP for Targeting Time-Sensitive Targets*, Appendix G, "Common Geographic Reference System," describes a standard area reference system. "CGRS is primarily an operational-level administrative measure used to coordinate geographical areas rapidly for battlespace deconfliction and synchronization.... The usefulness of a CGRS is that it enables establishment of appropriate control and coordination measures that can be mutually coordinated, deconflicted, and synchronized via a simple, common, mutually understood, and agreed upon reference system." The CGRS is a regional/theater-based system that a combatant commander can employ. On 15 December 2004, the Joint Chiefs of Staff signed a memo to the

Chairman, Joint Chiefs of Staff, adopting the ALSA-developed "regional common geographic reference system (CGRS) as each service's training standard." On 25 March 2005, the Secretary of Defense directed the National Geospatial-Intelligence Agency (NGA) to "take the lead in developing a global reference system that meets the requirements of the combatant commanders and services." NGA, with the help of service representatives, is developing that new global system. The joint doctrine community will address this in the ongoing revision of *JP 2-03 Geospatial Intelligence (GEOINT) Support to Joint Operations*.

9. The joint working group deliberately formatted Chapter 1 of FM 3-09.34 to ensure that the language defining the kill box can migrate directly into the revision of JP 3-09.